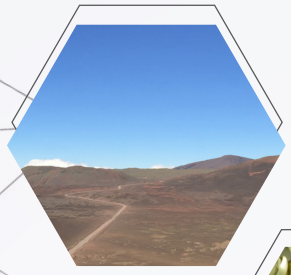
BOOK OF ABSTRACTS
POSTERS

Island BIOLOGY



La Réunion
8-13 JULY

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Université de la Réunion
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Monitoring terrestrial arthropod fauna for habitat knowledge and conservation in Réunion island

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Almost half of Reunion Island is protected by a national park and included on the UNESCO World Heritage List for its unique biodiversity. Arthropods, mainly insects, represent two thirds of biodiversity worldwide, and very likely on Reunion, and more than 75% of the animal diversity in non-marine ecosystems. Moreover, 31% of Reunion's arthropod species are endemic to the island and 40% of the Mascarenes archipelago. Data concerning arthropods collected using standardized protocols over 400 sites spread across the island for the last two decades were gathered to create spatialized, state-of-the-art knowledge on arthropod bidiversity. Standardized collections by vegetation beating and light trapping provide most of the information at both the island and at the major habitat scales, with valuable additional information on the relationship between arthropods and plants at species level. All the main habitats and altitudinal ranges were sampled but in a rather unbalanced way with a scarcity of information on the windward side of the island and associated habitats. In addition, when standardized, collections by vegetation beating allow us to quantify the relationship between arthropod biodiversity metrics such as richness, diversity or endemism, and plant species, habitats and their conservation level. These documented links are helpful tools to define conservation priorities, as well as to evaluate habitat disturbance or recovery. On permanent reference sites, such protocols, shared with other islands, can be implemented to define reference states for long term monitoring in the context of biological invasions and global climate change.

Keywords: arthropod sampling, traps, endemism, diversity, habitat level

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